

REMARKS:

Claims 1-12 and 14-19 are pending in the present application.

In the Office Action dated September 20, 2005, the Examiner initially rejected all pending claims pursuant to 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention and/or being incomplete for omitting essential steps. Specifically, the Examiner identified two issues/concerns:

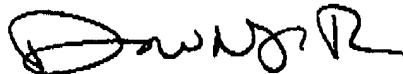
- Regarding claims 1 & 12, it is unclear as to how the exhaust flow rate is calculated based upon the instantaneous fuel consumption. For example, it is necessary to determine an emissions sample volume?
- Regarding claim 12, is it necessary to calculate total drive wheel power demand to determine engine load?

First, addressing the question as to how the exhaust flow rate is calculated based upon the instantaneous fuel consumption, Applicants direct the Examiner's attention to page 24, line 22 through page 26, line 7 of the application. Specifically, the amount of exhaust gas generated by the combustion of stoichiometric air-fuel ratios can be calculated by assuming the perfect combustion of a hydrocarbon representing commercial gasoline. For example, and as described with reference to equation (16) in the application, the combustion of 114 grams of octane under stoichiometric conditions produces 64 moles of exhaust gas. Then, again assuming standard conditions, an exhaust volume can be calculated. In the example described with reference to equation (16) in the application, the volume associated with these 64 moles of exhaust gas (at 22.4 liters per mole) is 1,434 liters or 50.6 cubic feet. Therefore, based upon the instantaneous fuel consumption, an exhaust flow rate (i.e., the volume of exhaust gas produced over a discrete time interval) can be calculated, as recited in claims 1 and 12 of the present application.

With respect to the second question posed by the Examiner, claim 12 has been amended to clarify that the engine load and engine speed are determined as a function of the total drive wheel power demand.

Based on the foregoing amendments and remarks, Applicants respectfully request allowance of all claims now pending in the present application.

Respectfully submitted,



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